

### **REMARKS**

Claims 1-10, 12, 13, 15-19, 22-31, 33, 34, 36, 37, 40-45, 48 and 49 are currently pending in the subject application and are presently under consideration. Claims 1, 10, 12, 15, 19, 22, 23, 25, 27, 29, 30, 33, 34 and 37 have been currently amended. Claims 11, 14 20, 21, 32, 35, 38, 39, 46 and 47 have been canceled.

Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

#### **I. Rejection of Claims 30-36 and 45-48 Under 35 U.S.C. §101**

Claims 30-36 and 45-48 stand rejected under 35 U.S.C. §101 because the claims are allegedly directed to a non-statutory subject matter. Withdrawal of this rejection is requested in view of the amendments to independent claim 30 and 33 submitted in the response to the Final Office Action dated March 30, 2007 which were admitted by the Examiner. *When functional descriptive material is recorded on a computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized.* Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994). Claims 30 and 33 recite that the computer executable instructions are stored on the computer readable medium. Hence, such instructions would be structurally and functionally interrelated to the medium. In view of at least the aforementioned, these rejections should be withdrawn.

#### **II.a Rejection of Claims 1-24, 32- 43 and 46-49 Under 35 U.S.C. §102(e)**

Claims 1-24, 32- 43 and 46-49 stand rejected under 35 U.S.C. §102(e) as being anticipated by Cheng, *et al.*, (U.S. 6,366,934). This rejection should be withdrawn for the following reasons. Cheng, *et al.* does not disclose or suggest each and every limitation set forth in the subject claims.

A single prior art reference anticipates a patent claim only if it *expressly or inherently describes each and every limitation set forth in the patent claim.* *Trintec Industries, Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292, 63 USPQ2d 1597

(Fed. Cir. 2002); *See Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). *The identical invention must be shown in as complete detail as is contained in the ... claim. Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989) (emphasis added).

Applicants' claimed subject matter provides for transforming hierarchical data, such as XML data, into a rowset and transforming a rowset into hierarchical data such as XML data. To this end independent claims 1, 12, 23, 33 and 37 recite similar features namely: *a parser that parses the hierarchical data, rearranges data from the hierarchical format into rowset format comprising at least a row, column and converts tag-formatted, text data in the hierarchical format into the rowset data associated with one or more data-types.* Cheng, *et al.* does not disclose or suggest these novel aspects.

Cheng, *et al.* relates to an extender for a relational database system for storing, querying and retrieving *structured* documents (*See* Cheng, *et al.* Abstract). Accordingly, Cheng, *et al.* teaches creation of XML tables that include one or more XML columns that contain XML documents (*See* Cheng, *et al.* col.13 lines 37-38, col.14 lines 22-23 and col.20 lines 19-21). Data is retrieved from the XML columns by converting the XML data into a file or buffer using UDFs (User Defined Functions). In fact, Cheng, *et al.* teaches returning XML documents in response to a database queries based on user defined functions (UDFs). For example, when `db2xml.ExtractChars()`, an UDF is used in a SELECT statement to retrieve books by author 'Bob' and price greater than '\$25.50', the WHERE clause of the SQL statement initially returns all *XML documents* having a book price greater than '\$25.50 and the XML extender searches the narrowed pool of *documents for XML documents* having author's first name as "Bob" (*See* Cheng, *et al.* col.21 lines 28-48). From the foregoing, it is clear that Cheng, *et al.* returns XML documents in response to search queries rather than forming rowsets as recited in the subject claims. Furthermore Cheng clearly discloses that the DB2 database contains XML documents when it states that, "*The stType attribute is a storage type as a constant, specifying the way the XML document must be stored in DB2*" (*See* Cheng col. 9 lines 31-32).

Nowhere does Cheng, *et al.* teach or suggest that implicit and explicit data within the structured document is identified and utilized in generating rowsets as recited in the subject claims. Rather, Cheng discloses *storing the structured XML documents in their entirety along with data and structure, within the columns of the DB2 database.* In contrast, the subject claims provide for not only rearranging data stored in hierarchical format into rowset format but also converting the text based hierarchical data into different data types that can be used within the rows, columns of the rowsets. Hence, the claimed subject matter relates to breaking down and analyzing the hierarchical structures of text-based, tag formatted documents such as XML documents. It further relates to identifying implicit information, for example, structure of data and explicit information such as information within the tags and re-arranging/reformatting the hierarchical data into rowsets based on the implicit/explicit information. Such rearrangements mitigate the need for user defined functions to be used with SQL statements as disclosed in Cheng, *et al.* Upon a conversion from a hierarchical format to a rowset, normal SQL queries without employment of the user defined functions such as those disclosed by Cheng, *et al.* maybe executed to retrieve rows of data from the generated rowset.

In view of at least the foregoing, it is clear that an identical invention as recited in the subject claims is not taught or suggest by Cheng, *et al.* Hence, this rejection should be withdrawn with respect to independent claims 1, 12, 20, 23, 32, 33, 37 and all the claims that depend there from.

#### **II.b Rejection of Claims 23-31 and 42-44 Under 35 U.S.C. §102(e)**

Claims 23-31 and 42-44 stand rejected under 35 U.S.C. §102(e) as being anticipated by Cheng, *et al.* (U.S. 6,366,934). This rejection should be withdrawn for the following reasons. Cheng, *et al.* does not disclose or suggest each and every limitation set forth in the subject claims.

A single prior art reference anticipates a patent claim only if it *expressly or inherently describes each and every limitation set forth in the patent claim.* *Trintec Industries, Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292, 63 USPQ2d 1597 (Fed. Cir. 2002); *See Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed.

Cir. 1987). The *identical invention must be shown in as complete detail as is contained in the ... claim*. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989) (emphasis added).

Applicants' claimed subject matter provides for conversion of data from a relational database model to hierarchical data. To the end, independent claims 23, 25, and 30 recite similar features namely: *parsing a first hierarchical data stream comprising text-based tagged information to generate an internal representation; ... retrieving at least a subset of data from the internal representation in response to the query; and formatting the retrieved subset of data into a rowset based on the information in the query and implicit metaproperties of the hierarchical data stream*. For example, referring to Fig.4B of applicants' specification, a row set to XML process 411 transforms rowset 409 into hierarchical form 413. Cheng, *et al.* does not disclose or suggest these novel aspects.

As stated *supra*, Cheng, *et al.* relates to an extender for a relational database system for storing, querying and retrieving structured documents. Accordingly, *XML documents* are stored in existing or newly created columns of a relational database and indexes are provided for searching and retrieving such documents (*See* Cheng, *et al.* co.3 lines 61-64, col.4 lines 11-14 and col.14 lines 21-22). On page 12 of the Final Office Action dated March 30, 2007, there is an erroneous, general assertion that the features of claims 23, 25, and 30 are taught by Cheng, *et al.* This is contrary to 37 CFR 1.104 (c) (2) which requires that the particular part relied upon from a reference in a rejection must be designated as nearly as practicable and the pertinence of each reference clearly explained. However, neither does the Examiner point to nor can applicants' representative find where Cheng, *et al.* teaches converting rowsets into hierarchical data as recited in claims 23, 25, and 30. In facilitating conversion from rowset to hierarchical format, the subject claims allow transmission of data over computer network or viewing the data over text editor (*See* applicants' specification paragraph [0046] lines 6-8). Cheng, *et al.* does not disclose or suggest such claimed aspects.

In view of at least the foregoing, it is clear that an identical invention as recited in the subject claims is not taught or suggest by Cheng, *et al.* Hence, this rejection should

be withdrawn with respect to independent claims, 23, 25, 30 and all the claims that depend there from.

**CONCLUSION**

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [MSFTP1469USA].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicant's undersigned representative at the telephone number below.

Respectfully submitted,

AMIN, TUROCY & CALVIN, LLP

/Himanshu S. Amin/

Himanshu S. Amin

Reg. No. 40,894

AMIN, TUROCY & CALVIN, LLP  
24<sup>TH</sup> Floor, National City Center  
1900 E. 9<sup>TH</sup> Street  
Cleveland, Ohio 44114  
Telephone (216) 696-8730  
Facsimile (216) 696-8731